

Analysis of 1000 parts of Blood.					Analysis of 1000 parts of Serum.				
Globules	-	-	-	79.4	Organic matters	-	-	-	61.5
Fibrin	-	-	-	2.2	Inorganic matters	-	-	-	8.5
Organic matters of serum	-	-	-	56.2	Water	-	-	-	930.
Inorganic matters of serum	-	-	-	7.8					
Water	-	-	-	854.4					
				<hr/>					<hr/>
				1000.					1000.

or a little less alkaliæ, it does not follow that they may be inconsiderately administered. They stand at the head of the agents which exert on the serum the most marked fluidifying action. All the alkalis affect our economy in an identical manner. They produce on the organ of taste an impression *sui generis*, designated as *alkaline* or *urinary*. M. Chevreul showed this to be always due to the same substance, ammonia, which is set free by the decomposing effect exerted by the alkaline base on the hydrochlorate of ammonia contained in the buccal fluids. Experience has shown that, the same chemical fact prevails in respect to the bicarbonates and carbonates, and all the other fluids of the living body. Hence, wherever we introduce any alkaline substance into the economy, a certain quantity of ammonia is set free. This explains why the ingestion of a certain quantity of bi-carb. soda dissipates the symptoms of druckeaus—the ammonia disengaged restores to the albuminous elements of the blood that fluidity which the coagulating action of alcohol had partially deprived them of.

Under what circumstances is the employment of alkalis efficacious or dangerous? Clinical observation shows us that the daily taking of a drachm or a drachm and a half of bicarbonate of soda, or its equivalent of any other alkali, so far from being generally injurious, is frequently advantageous. Many persons can take far larger doses with impunity, while much smaller ones have, in some cases, induced serious accidents. All substances which produce an acid predominance in the blood allow of a large quantity of alkalis being taken. Thus, the inactive inhabitants of towns, in whom there is hardly any acid secretion from the skin, especially in winter, will bear large doses of alkalis. It is the same with those who live upon an almost exclusively meat diet, inasmuch as the albuminized elements containing sulphur and phosphorus, these two elements produce, by their interstitial combustion, phosphoric and sulphuric acids in marked proportions. This explains why the urine of the carnivora is normally acid, that of the herbivora always alkaline. On the other hand, whatever favours the predominance of alkalis in the vital humours forbids their employment. Thus the laborious inhabitants of the country, in consequence of their abundant acid sweats, can ill bear the ingestion of alkalis. So with persons who adopt an exclusively vegetable regimen, the blood is normally rich in carbonate of potass, by means of the transformation which the salts of potass in combination with the organic acids have undergone. Lastly, there are certain pathological conditions which lead us to vary the amount of alkalis given. Who does not know that in gout, gravel, and especially diabetes, immense quantities of these may be given? and who is not aware that certain summer and autumn putrid affections will not tolerate them?

Clinical observation has long shown that the various alkalis may replace each other in practice. This is the case with carbonate of lime and of magnesia: as also with the compounds of soda and potass. It has been erroneously stated that soda is more favourable to the animal constitution than potass. Analysis of the animal liquids shows that the potass compounds are equally prevalent with the soda, and as regards the herbivora, far more so. But, although we can in general, by the aid of any alkaline preparation, induce an identical medical result, we believe it is better to give the preference (as mere antacids) to those alkaline compounds which present the advantage of having always a uniform chemical composition, and of producing little or no therapeutical effect; and in these respects the hydrated calcined magnesia and the bicarbonate of soda seem to hold the first rank.—*Med. Chirurg. Rev.*, Oct. 1847, from *L'Union Médicale*, Nos. 1 and 4.

16. On Alum Gargles. By M. MALLET.—We have shown elsewhere that the true *astringents* belong to the class of *coagulants*, that is to say, the class of chemical agents capable of entering into chemical combinations with the albuminous elements of the blood, and forming with them an insoluble compound. In applying this principle to *alum*, we showed how this substance, penetrating into our tissues, is first decomposed by the alkalis of the blood, so as to form an insoluble sub-salt, which is deposited in the organic tissues, filling their network, and, so to speak, tanning them. We pointed out how a new portion of alum, being no longer modified by the alkalis already saturated, then acts by fluidifying the albumen, in stimulating exhalation; and how, lastly, this *alum-albuminous fluid*, taken into the circulation, again becomes solid when it finds itself in presence of